

5. *H. Oliveri* Gray, Proc. Am. Acad. **20**: 299. 1885. Type.—*J. Oliver*, Cienega, between Los Angeles and Santa Monica, California; in the Gray Herbarium.

The status of *H. attenuatus*, *H. bracteatus*, and *H. exasperatus* is especially questionable. *Helianthus exasperatus* appears to be a hybrid, with one of the parents being *H. giganteus*.—OHIO WESLEYAN UNIVERSITY DELAWARE, OHIO.

LITERATURE CITED

- LONG, ROBERT W. JR. 1954. A biosystematic investigation of *Helianthus giganteus* L. and related species. Ph.D. thesis. Library, Indiana University.
- WATSON, E. E. 1929. Contributions to a monograph of the genus *Helianthus*. Pap. Mich. Acad., **9**: 305–475.

CYPRIPEDIUM ARIETINUM R. BR. IN NOVA SCOTIA.—About one-quarter of a mile south of the southern end of the Wentworth gypsum quarries in Hants County, several clumps of *Cypripedium arietinum* R. Br. were found growing in broken country of gypsum sinkholes and thin poplar scrub. The plants were in full flower on the 24th of May, while the neighboring *Cypripedium calceolus* L. var. *parviflorum* (Salisb.) Fern. was still in small bud. It is probable that the extension of the quarries will destroy this area within a few years.

The present find would be merely another range extension of minor interest but for the fact that this is the fourth species to be found in these few acres of undisturbed gypsum and known from no other part of Nova Scotia. The others are: *Viola canadensis* L. (Roland: Flora of Nova Scotia); *Dirca palustris* L. (Erskine, J. S.: RHODORA **55**: 18); *Aloina rigida* (Hedw.) Kindb., a moss collected by W. B. Schofield and the author. Its identity was confirmed by Dr. A. L. Andrews. The northern limit of all four species is roughly the same, from the north of Lake Superior eastward to Massachusetts, with the exception of an unrecorded collection of *Aloina* from the Hudson Bay region. This distribution suggests that these four species survived just south of the Wisconsin ice-sheet and pushed north in a warm and favorable spell while the destroyed land was still unforested. Our cliff-floras, however, contain many northern plants which could hardly have come in from the south at this time. The assumption that an incomplete glaciation of Nova Scotia and neighboring areas existed during the late Wisconsin

period would fit all the facts thus far available.—J. S. ERSKINE,
WOLFVILLE, NOVA SCOTIA.

NOTES ON TWO NEW HAMPSHIRE TREES.—*Pinus Banksiana* Lamb. is known from three stations in New Hampshire: Welch Mountain in Waterville on ledges near the top, Carter Ledge on Mt. Chocorua, and on ledges on the shore of Lake Umbagog. This last station is partly in Maine. In November 1953, the author and Alexander Lincoln Jr. explored the cliffs of Mt. Webster in Crawford Notch. On a steep rocky promontory near the top of the slides, we discovered a single tree of this species. The tree was approximately fifteen feet high and was bearing cones. No others were visible over a wide area. Rock slides occur here and evidently destroy vegetation at frequent intervals. A collection is being placed in the New England Botanical Club.

Juniperus virginiana L. var *crebra* Fern. & Griseb. is found in pastures and old fields in New Hampshire, becoming increasingly less common as far north as the southern slopes of the Ossipee Mountains in Tuftonboro. A collection from Tamworth is from a stand of trees in an overgrown field not far from an old farmhouse. These trees seem to be growing in a natural way, but may be descendants of trees that were originally planted. Professor Pease has told me of a report of its occurrence in Crawford Notch that he has been unable to verify. In the past year I have discovered three stations in northern Carroll County: Band M Ledge in Madison, Humphrey Ledge in Bartlett, and White Ledge on Mt. Stanton in Bartlett. At all of these stations there are precipitous cliffs from 100 to 400 feet high, with talus slopes at the bottom. Small specimens of the tree were found growing in small pockets of soil and in cracks on the steep parts of the cliffs, often in completely inaccessible places. In one case a small colony was found in the middle of large rocks that made up the talus slope. If the Crawford Notch report is correct, this plant should be searched for on the steeper ledges that can be found on both sides of the notch. Collections from the Carroll County localities are being placed in the New England Botanical Club.—FREDERIC L. STEELE,
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